REMARKS

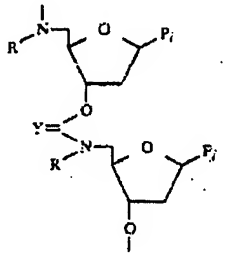
Claims 34-36, 38-41, 43-45, and 47-73 are pending in this patent application.

Compliance With 35 U.S.C. § 102

Claims 34-36, 41, 48-51, 58, 59, and 65-68 were rejected as allegedly anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 5,142,047 ("the Summerton patent"). Applicants request reconsideration of this response because the Summerton patent neither discloses nor suggests any claimed invention.

For a reference to be anticipatory, it must describe "all elements of [the] claimed invention arranged as in that claim." *Carella v. Starlight Archery*, 804 F.2d 135, 138 (Fed. Cir. 1986); *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1267 (Fed. Cir. 1991). Importantly, for a rejection to be proper under 35 U.S.C. § 102, the reference must "clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference." *In re Arkley*, 172 U.S.P.Q. 524, 526 (C.C.P.A. 1972) (emphasis in original). Additionally, in order to be anticipating, a prior art reference must be enabling so that the claimed subject matter may be made or used by one skilled in the art. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354 (Fed. Cir. 2003).

The Summerton patent does not satisfy these requirements. The Office, for example, mistakenly asserts that the linkages recited in the instant claims corresponds to the linkage used in the following compound in the Summerton patent (Office Action at page 9).



However, the Sommerton linkage (*i.e,* -**O**-C(=O)-NR- when Y is oxygen) is a urethane linkage, whereas the claims recite amide linkage (*i.e.*, -**C**-C(=O)-NR-). Thus, there is no anticipation. For at least this reason, Applicants respectfully request that the rejection be withdrawn.

Compliance With 35 U.S.C. §112, First Paragraph (Enablement)

The Office Action contends that claims 34-36, 38-41, 43-45, and 47-73 lack enablement with respect to use of the recited compounds within a cell, and cites three references in support of this contention -- Ganesh, *et al.*, Current Organic Chemistry 2000, 4, 931-943 and U.S. Patent Nos. 6,472,209 and 5,142,047.

Although the Office Action asserts that the cited art demonstrate that PNAs encounter some difficulty in being taken up by cells, such a circumstance, even if true, would not support the instant rejection. Applicants note, for example, that advances in science and technology typically encounter some level of skepticism and problems that need to be overcome. Indeed, other work during the relevant time period indicates that techniques existed to address PNA uptake. Applicants draw the Examiner's attention to Uhlmann, *et al.*, *Angew. Chem. Int. Ed.* 1998, 37, 2796-2823 (hereinafter, "the Uhlmann article", a copy of which accompanies this response). The Uhlmann article describes techniques for allowing PNAs to bypass the membrane barrier via microinjection or use of detergents. *See*, Section 5.2 on page 2816. The specification of parent application No. 08/108,591 (now U.S. Patent No. 6,395,474), and that of the instant application, states that the reagents of the instant invention may be used for research and in diagnostics for detection and isolation of specific nucleic acids. *See*, column 10, lines 45-60 of U.S. Patent No. 6,395,474 and paragraph 99 on page 6 of U.S. Patent Application No. 2006/0160731 (the publication of the instant application). Uptake via microinjection, or the use of permeabilization enhancers or detergents is fully compatible with such uses. The instant specification teaches applying the PNA compositions using a diluent or carrier (paragraph 0141). Further, one of the microinjection references cited in the Uhlmann article dates from 1993 and other references date from the mid-1990s. *See*, Section 5.2 on page 2816 of the Uhlmann article. Thus, knowledge concerning delivery of PNAs at the time of the instant application was considerably more advanced than acknowledged by the Office.

Further, Applicants note that the Uhlmann article is a review article, and point the Office's attention to Hanvey, Science 1992, 258, 1481-1485 ("the Hanvey publication"), which is reference 97 in the Uhlmann article. It is clear from the Hanvey publication that microinjection was used for introducing PNA in to cell in 1992, *i.e.* prior to the filing date of the parent application. In light of the information presented herewith, Applicants' disclosure is more than adequate, and would not require undue experimentation to practice the instant inventions. As such, Applicants submit that the claims are enabled and respectfully request withdrawal of the rejection.

Conclusions

Applicants believe the foregoing constitutes a complete response to the Office Action and submit that all pending claims are in condition for ready allowance. An early Office Action to that effect is, therefore, earnestly solicited.

Respectfully submitted,

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